

VIEWPOINT

Addressing the Physician Shortage

The Peril of Ignoring Demography

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Does the United States have enough physicians?—No.

The United States faces a serious physician shortage that is likely to worsen in the coming decade without multifaceted intervention. At the same time, the US health care system is in a period of marked uncertainty, and many questions are on the horizon—from the future of health insurance coverage to how scientific discoveries will revolutionize medicine in the coming decades. With multiple variables affecting how the health needs of the United States will evolve in the next few years, physician workforce projections must consider this complex and dynamic landscape.

Demographic Changes

Of the many challenges that US health care faces, demographic change is foremost among factors contributing to workforce shortages. Arguably, it is also the variable about which the facts are clearest. The population of the United States both is increasing in number and is aging. Current projections indicate that between 2015 and 2030, the US population will increase by 12% to 359 million, with the population aged 65 years or older projected to increase by 55%. With 10 000 individuals in the United States turning 65 years old every day, this older population will drive increased demand for health services over the next few decades. Not only is the population as a whole aging, but more than one-third of all currently active physicians will be aged 65 years or older within the next 10 years, and the retirement decisions of those physicians will have a significant effect on physician supply.¹

Physician Workforce Projections

Beyond demographic change, uncertainty about future policy regarding health insurance and the financing of care, the potential implications of integrated care delivery models, and new developments in technology complicate the picture of the future physician workforce. Considering all these factors, the annual physician workforce projections commissioned by the Association of American Medical Colleges (AAMC) take a multivariable approach. The method analyzes a number of assumptions and determines variable outcomes to assess the nation's current situation and future needs.

The recently released 2017 update¹ of annual physician workforce projections indicates that under likely scenarios, the United States will face a shortage of between 40 800 and 104 900 physicians by 2030. Workforce projections for surgical specialties are an area of particular concern, with a projected shortfall of between 19 800 and 29 000 surgical specialists by

2030. While some contend that repealing the Affordable Care Act (ACA) will help resolve the physician shortage, these projections indicate that if the ACA is replaced with policies and programs that reduce current coverage to pre-ACA levels, future demand would decrease by only 6000 to 10 000 physicians.¹ Regardless of the future of the ACA, shortages in the numbers of physicians, especially in certain specialties, are likely to persist.

The data also indicate shortages in both specialty and primary care and in both urban and rural communities. In fact, many individuals in US urban and rural underserved communities are already feeling the effects of the shortage—wait times for physician visits are long, and the most vulnerable people often have difficulty accessing a physician when they need one. Some suggest that simply correcting maldistribution—too many physicians in suburban areas, too few in certain urban and rural areas—will solve the issue. However, an analysis based on 2015 population data indicates that if underserved populations had full access to physicians and utilized health care at the same rate as the rest of the population, an additional 34 800 to 96 800 physicians would be required immediately to meet that demand.¹ Thus, even if it were mandated, redistributing physicians would still result in shortages.

Nonphysician Clinicians

Some who argue that the United States does not have a serious physician shortage contend that it can meet this growing need and expand the capacity currently provided by physicians by using nonphysician health care professionals such as physician assistants or advanced practice nurses. Creating a culture of true team-based care, with these professionals as integral members of the health care team, will result in more effective and efficient care and may help mitigate shortages to a certain point. Current AAMC projections consider the reality of an expanded role for nonphysician health care professionals. But the presence of these practitioners cannot be expected to wholly take over for needed physician services. These health care professionals deliver important additional services, not exactly the same ones as physicians. Moreover, as care and technology advance, novel treatments and complex tools will create new demands for physicians to implement these interventions as other functions may be taken on by other caregivers.

Technological Advances

Those who claim that the current and future needs of the United States do not demand increasing the supply of physicians may also argue that technological advances

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will solve the challenge posed by the changing population demographics. Medical advances in diagnosis and treatment can solve some problems in access and potentiate the work of individual physicians—for example, through the use of telemedicine in various forms. According to one study, while telemedicine is a new and robust technology that improves convenience for patients, it does not save time for physicians. The study noted that the use of telemedicine “is almost always more time and trouble than practicing the ordinary way.”² Telemedicine is an important development that can bring specific care to underserved communities, but only if enough physicians are available to provide that service.

Advanced technology fuels demand for physicians in other ways. Another study suggests that the hope for new technologies and treatments is not only to reduce lifelong consumption of medical care but also to lead to cures for disease and better treatment, which in turn results in longer life spans. Longer lives result in the use of more medical care over the course of a lifetime, sometimes for conditions that, as a result of new technologies, have become treatable diseases requiring ongoing care rather than causes of death.³ Although advances in care bring hope to patients with chronic or serious illnesses, those advances also expand the need for physicians.

Moreover, even if supercomputers like IBM’s Watson become common diagnostic aids, a computer cannot replace a human being when it comes to the empathic communication required for effective care and shared decision making. The human relationship and supportive guidance that physicians provide to their patients go far beyond a simple function of a machine sorting data. As far as technology advances, it cannot replace the human connection at the heart of the practice of medicine.

Solving the Physician Shortage

Given the many years required to train a physician, it is essential to acknowledge the current and increasing physician shortage now. Solving the physician shortage will require a multifaceted approach over time. The US health care system is in a transformational moment, representing an important opportunity to develop better practice models, create a culture of interprofessional team-based care, advance medical technology, and develop a diverse health care workforce that serves all individuals in the United States. In addition, medical schools and residencies must also train enough physicians to meet the needs of the population. United States medical schools are already responding by increasing medical student matriculation—since 2002, MD degree enrollment has increased by 27.5%, from 16 488 matriculants in 2002 to 21 030 matriculants in 2016 (unpublished data, AAMC Data Warehouse: Applicant Matriculant File, October 6, 2016)—and there are record numbers of applicants to medical school. However, caps placed on federal Medicare funding for residency training nearly 2 decades ago limit the current ability to expand graduate medical education, thereby limiting use of a key tool for meeting the nation’s need for physicians. Congress needs to increase these caps if the United States is to expand its overall supply of physicians.

As the size of the US population increases, the ratio of physicians to the population is declining. Ignoring demographic change will be perilous for the US health care system. Relying on unrealistic assumptions—for example, that political uncertainty will evaporate or that changing health care delivery methods will be seamless and immediately eliminate inefficiencies—is not a prudent strategy for addressing physician supply and the health needs of the nation.

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REFERENCES

1. IHS Inc. 2017 Update: *The Complexities of Physician Supply and Demand: Projections From 2015 to 2030: Final Report*. Washington, DC: Association of American Medical Colleges; February 28, 2017. https://aamc-black.global.ssl.fastly.net/production/media/filer_public/a5/c3/a5c3d565-14ec-48fb-974b-99fafaecb00/aamc_projections_update_2017.pdf
2. Zanaboni P, Wootton R. Adoption of telemedicine: from pilot stage to routine delivery. *BMC Med Inform Decis Mak*. 2012;12(1):1-9.
3. Grover A, Niecko-Najjum LM. Building a health care workforce for the future: more physicians, professional reforms, and technological advances. *Health Aff (Millwood)*. 2013;32(11):1922-1927.